WHAT IS CLAIMED IS:

1. An apparatus for dispensing a medication fluid comprising:

a reservoir adapted to contain the fluid; and

a piston comprising:

a first member adapted to be slidably mounted within the reservoir and adapted to form at least part of a fluid-tight barrier within the reservoir;

the first member having an external proximate side and an external distal side, the external proximate side being adapted to contact the fluid and being made of a material having a first stiffness, and wherein the external distal side forms an opening leading to a cavity;

a second member having a first side and a second side, at least a portion of the second member being disposed within the cavity of the first member; and

the first side of the second member being in the cavity and adjacent to the external proximate side of the first member and being made of a material having a stiffness which is greater than the first stiffness.

2. The apparatus of claim 1, wherein the second member first side is in a generally parallel, spaced-apart relationship with the first member external proximate side.

3. The apparatus of claim 1, wherein the material of the first member external proximate side has a thickness defined by the distance between the first member external proximate side and the second member first side, and wherein the thickness is generally uniform.

4. The apparatus of claim 1, wherein the first member external proximate side is made of an elastomeric material and the second member first side is made of one of stainless steel and plastic.

5. The apparatus of claim 1, wherein the second member is substantially contained within the first member.

6. The apparatus of claim 1, wherein the second member extends past the external proximate side of the first member and is adapted for contact with the fluid to complete the fluid-tight barrier within the reservoir.

7. The apparatus of claim 1, wherein the second member has a generally incompressible structure.

8. The apparatus of claim 1, wherein the cavity having an internal proximate wall and an internal side wall, the internal proximate wall being adjacent to the external proximate side.

9. The apparatus of claim 8, wherein the internal proximate wall of the cavity and the external proximate side are in a generally parallel spaced-apart relationship.

10. The apparatus of claim 8, wherein the material of the first member external proximate side has a thickness defined by the distance between the external proximate side and the internal proximate wall of the cavity, and wherein the thickness is generally uniform.

11. The apparatus of claim 1, wherein the cavity comprising:

a first chamber extending from the external distal side into the cavity; and

a second chamber extending from the first chamber to an internal proximate wall, the internal proximate wall being disposed adjacent to the external proximate side;

and wherein the second member is disposed within the second chamber.

12. The apparatus of claim 11, wherein the first chamber is defined by a generally cylindrically-shaped first wall extending axially from the external distal side into the cavity, and wherein the second chamber is defined by:

a generally cylindrically-shaped second wall extending axially from the generally cylindrically-shaped first wall into the cavity, the generally cylindrically-shaped second wall having a radius which is greater than that of the generally cylindrically-shaped first wall;

a ledge extending from the generally cylindrically-shaped first wall to the generally cylindrically-shaped second wall; and

the internal proximate wall.

13. The apparatus of claim 12, wherein the internal proximate wall of the second chamber and the first member external proximate side are in a generally parallel spaced-apart relationship.

14. The apparatus of claim 13, wherein the internal proximate wall has a generally conical shape and the external proximate side has a generally conical shape.

15. The apparatus of claim 14, wherein the second member has a generally conical face, a generally cylindrical side wall and a planar back wall, the generally conical face being adapted to mate with the internal proximate wall and the second member being adapted to seat against the ledge.

16. The apparatus of claim 14, wherein the second member has a conical face portion which terminates in a spherically-shaped end portion.

17. The apparatus of claim 15, wherein the first member is made of an elastomeric material and the second member is made of one of stainless steel and plastic.

18. The apparatus of claim 12, wherein the generally cylindrically shaped first wall has threads.

19. The apparatus of claim 18, wherein the threads have a 2 start, 40 thread per inch pitch.

20. The apparatus of claim 1, wherein the reservoir is adapted for use with a pump drive system having a linear actuation member, and wherein the piston first member is adapted to be releasably coupled to the linear actuation member.

21. The apparatus of claim 20, wherein the linear actuation member includes a first threaded member and the piston first member includes a second threaded member adapted to engage the first threaded member.

22. The apparatus of claim 21, wherein the first threaded member comprises a screw extending from the linear actuation member and having external threads, and the second threaded member comprises a cavity defined by the first member and having internal threads positioned to be engaged by the screw external threads.

23. The apparatus of claim 22, wherein the external threads of the screw are made of a material having a first hardness and the internal threads of the first member cavity are made of a material having a second hardness.

24. The apparatus of claim 22, wherein the external threads of the screw have a first lead and wherein the internal threads of the first member cavity have a second lead.

25. A method for dispensing fluid from a fluid reservoir having a piston which defines an axis of travel, the method comprising:

coupling the reservoir piston to a linear actuator, the reservoir piston comprising:

a first member adapted to be slidably mounted within the reservoir and adapted to form a fluid-tight barrier within the reservoir;

the first member having an external proximate side and an external distal side, the external proximate side being adapted to contact the fluid and being made of a material having a first stiffness, and wherein the external distal side forms and opening leading to a cavity;

a second member having a first side and a second side, the second member being disposed within the cavity of the first member; and

the first side of the second member being in the cavity and adjacent to the external proximate side of the first member and being made of a material having a stiffness which is greater than the first stiffness;

rotating a motor drive shaft; and

linearly actuating the reservoir piston along the piston axis of travel using the linear actuator in response to rotation of the motor drive shaft to dispense the fluid from the reservoir.

26. The method of claim 25, wherein the second member first side is in a generally parallel, spaced-apart relationship with the first member external proximate side.

27. The method of claim 25, wherein the material of the first member external proximate side has a thickness defined by the distance between the first member external proximate side and the second member first side, and wherein the thickness is generally uniform.

28. The method of claim 25, wherein the first member external proximate side is made of rubber and the second member first side is made of one of stainless steel and plastic.

29. The method of claim 25, wherein the reservoir is adapted for use with a pump drive system having a linear actuation member, and wherein the piston first member is adapted to be releasably coupled to the linear actuation member.

30. The method of claim 29, wherein the linear actuation member includes a first threaded member and the piston first member includes a second threaded member adapted to engage the first threaded member.

31. The method of claim 30, wherein the first threaded member comprises a screw extending from the linear actuation member and having external threads, and the second threaded member comprises a cavity defined by the first member and having internal threads positioned to be engaged by the screw external threads.

32. The method of claim 31, wherein the external threads of the screw are made of a material having a first hardness and the internal threads of the first member cavity are made of a material having a second hardness.

33. The method of claim 31, wherein the external threads of the screw have a first lead and wherein the internal threads of the first member cavity have a second lead.

34. A piston for a reservoir adapted to contain a fluid, the piston comprising:

a first member adapted to be slidably mounted within the reservoir and adapted to form a fluid-tight barrier within the reservoir;

the first member having an external proximate side and an external distal side, the external proximate side being adapted to contact the fluid and being made of a material having a first stiffness, and wherein the external distal side forms an opening leading to a cavity; and

means for providing a second stiffness to the external proximate side is positioned in the cavity, the second stiffness being greater than the first stiffness.

35. The piston of claim 34, further comprising:

means for coupling the first member to a linear actuator.

36. The piston of claim 36, wherein the external proximate side of the first member is generally conical in shape.

37. A method of coupling an actuator to a reservoir piston, comprising:

providing electrical power to a pump motor which is operably coupled to a plunger slide, the power being provided when the plunger slide is in a position other than fully inserted in a reservoir piston cavity;

measuring a first value corresponding to the axial force on the plunger slide;

determining whether the first value exceeds a second value corresponding to the axial force on the plunger slide when the plunger slide is fully inserted in the piston cavity; and

terminating electrical power to the pump motor after determining that the first value exceeds the second value.

38. The apparatus of claim 1, wherein the second member includes one or more passages through the second member from the first side to the second side of the second member to permit admittance of a sterilization agent to the first side of the second member.

39. The apparatus of claim 1, wherein the second member is formed from ceramic.

40. The apparatus of claim 1, wherein the second member is formed from a plastic material.

41. The apparatus of claim 1, wherein the second member is formed with ridges on the first side of the second member to permit admittance of a sterilization agent to the first side of the second member.

42. The apparatus of claim 1, wherein the second member is formed with notches extending from the first side of the second member to the second side of the second member to permit admittance of a sterilization agent to the first side of the second member.

43. The apparatus of claim 1, wherein the second member is formed with channels on the first side of the second member to permit admittance of a sterilization agent to the first side of the second member.

44. The apparatus of claim 1, wherein the second member is formed with corrugations to permit admittance of a sterilization agent to the first side of the second member.

45. The apparatus of claim 1, wherein the second member is formed from a porous material to permit admittance of a sterilization agent to the first side of the second member.

46. The apparatus of claim 1, wherein the second member is formed from woven fiber-like structures to permit admittance of a sterilization agent to the first side of the second member.

47. The apparatus of claim 1, wherein the second member is formed as a composite of a first material with a second porous material to permit admittance of a sterilization agent to the first side of the second member.

48. The method of claim 25, wherein the second member includes one or more passages through the second member from the first side to the second side of the second member to permit admittance of a sterilization agent to the first side of the second member.

49. The method of claim 25, wherein the second member is formed from ceramic.

50. The method of claim 25, wherein the second member is formed from a plastic material.

51. The method of claim 25, wherein the second member is formed with ridges on the first side of the second member to permit admittance of a sterilization agent to the first side of the second member.

52. The method of claim 25, wherein the second member is formed with notches extending from the first side of the second member to the second side of the second member to permit admittance of a sterilization agent to the first side of the second member.

53. The method of claim 25, wherein the second member is formed with channels on the first side of the second member to permit admittance of a sterilization agent to the first side of the second member.

54. The method of claim 25, wherein the second member is formed with corrugations to permit admittance of a sterilization agent to the first side of the second member.

55. The method of claim 25, wherein the second member is formed from a porous material to permit admittance of a sterilization agent to the first side of the second member.

56. The method of claim 25, wherein the second member is formed from woven fiber-like structures to permit admittance of a sterilization agent to the first side of the second member.

57. The method of claim 25, wherein the second member is formed as a composite of a first material with a second porous material to permit admittance of a sterilization agent to the first side of the second member.

58. The piston of claim 34, wherein the second member includes one or more passages through the second member from the first side to the second side of the second member to permit admittance of a sterilization agent to the first side of the second member.

59. The piston of claim 34, wherein the second member is formed from ceramic.

60. The piston of claim 34, wherein the second member is formed from a plastic material.

61. The piston of claim 34, wherein the second member is formed with ridges on the first side of the second member to permit admittance of a sterilization agent to the first side of the second member.

62. The piston of claim 34, wherein the second member is formed with notches extending from the first side of the second member to the second side of the second member to permit admittance of a sterilization agent to the first side of the second member.

63. The piston of claim 34, wherein the second member is formed with channels on the first side of the second member to permit admittance of a sterilization agent to the first side of the second member.

64. The piston of claim 34, wherein the second member is formed with corrugations to permit admittance of a sterilization agent to the first side of the second member.

65. The piston of claim 34, wherein the second member is formed from a porous material to permit admittance of a sterilization agent to the first side of the second member.

66. The piston of claim 34, wherein the second member is formed from woven fiber-like structures to permit admittance of a sterilization agent to the first side of the second member.

67. The piston of claim 34, wherein the second member is formed as a composite of a first material with a second porous material to permit admittance of a sterilization agent to the first side of the second member.